Angle Resolved Performance Measurements on PV Glass and Modules. - DTU Orbit (09/11/2017)

Angle Resolved Performance Measurements on PV Glass and Modules.

The angular response of PV-modules has significant impact on the energy production. This is especially pronounced in BIPV where installation angles often are far from optimal. Nevertheless, a gain in energy yield may be obtained by choosing a proper glass as superstrate. In this work we present the concept of PV balconies as cost efficient and easy way of integrating PV into buildings. The experimental work consists of the fabrication of single cell mini modules with different glass covering, and characterizing their angular response in a custom made setup, where only the direct sunlight is used as a light source. As a special case we estimate the annual yield for each glass in the case of PV balconies for a specific geographical location and orientation of the module.

General information

State: Published
Organisations: Department of Photonics Engineering, Diode Lasers and LED Systems, Optical Microsensors and Micromaterials, SolarLab ApS
Authors: Juutilainen, L. T. (Intern), Thorsteinsson, S. (Intern), Poulsen, P. B. (Intern), Thorseth, A. (Intern), Amdemeskel, M. W. (Intern), Canulescu, S. (Intern), Rødder, P. M. (Ekstern), Rødder, K. (Ekstern)
Pages: 2235-8
Publication date: 2016

Host publication information

Title of host publication: Proceedings of the 2016 European Photovoltaic Solar Energy Conference and Exhibition 2016
ISBN (Print): 3936338418
Main Research Area: Technical/natural sciences
Conference: 32nd European Photovoltaic Solar Energy Conference and Exhibition, Munich, Germany, 20/06/2016 - 20/06/2016
Solar Cell, Building Integrated Photovoltaic (BIPV), PV Application, Angular Performance
Source: PublicationPreSubmission
Source-ID: 124998425
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016